REMARKS

I.   Introduction

In response to the Office Action dated May 19, 2005, no claims have been cancelled, amended or added. Claims 1-24 remain in the application. Re-examination and re-consideration of the application is requested.

II.   Prior Art Rejections

A.   The Office Action Rejections

In paragraph (2) of the Office Action, claims 17-19 and 21-23 were rejected under 35 U.S.C. §102(e) as being anticipated by Palermo, U.S. Patent No. 6,181,734 (Palermo). In paragraph (3) of the Office Action, claims 1-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sieppi, U.S. Patent No. 6,577,637 (Sieppi) in view of Palermo. In paragraph (4) of the Office Action, claims 20 and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Palermo in view of Hsu.

Applicants' attorney respectfully traverses these rejections.

B.   The Applicants' Independent Claims

Independent claims 1 and 5 are directed to tunneling voice data over one or more networks. Claim 1 is representative of both claims, and comprises the steps of:

(a) transmitting a notification to a called party's network that a calling party's handset is calling from a particular type of network; and

(b) loading one of a plurality of software-defined vocoders into the called party's handset based on the transmitted notification, wherein the loaded software-defined vocoder, when executed by the called party's handset, translates voice data communicated between the calling party's handset and the called party's handset.

Independent claims 9 and 13 are directed to tunneling voice data over one or more networks. Claim 9 is representative of both claims, and comprises the steps of:

(a) receiving a notification from a calling party's network that it is a particular type of network; and

(b) loading one of a plurality of software-defined vocoders into a called party's handset based on the received notification, wherein the loaded software-defined vocoder, when executed by the

-7-

called party's handset, translates voice data communicated between the calling party's handset and the called party's handset.

Independent claims 17 and 21 are directed to tunneling voice data over one or more networks. Claim 17 is representative of both claims, and comprises the steps of:

(a) loading one of a plurality of vocoders into a processor of a called party's handset, wherein the loaded vocoder is selected based on a particular type of network communicating with a calling party's handset; and

(b) executing the loaded vocoder in the processor of the called party's handset, wherein the vocoder translates voice data communicated to the called party's handset from the calling party's handset.

C. The Palermo Reference

Palermo describes a radio in which different waveforms may be utilized. The radio includes a memory (801) in which software (802, 805, 806) for specific waveforms is stored. The radio further includes one or more processors (807, 809, 811) which extract waveform specific software to process information for transmission or reception. All processing of the information between reception or reproduction of speech and transmission and reception of radio frequency signals, respectively, is performed in software.

D. The Sieppi Reference

Sieppi describes a switching means (BSC/MSC/VLR) of a mobile radio communication network (PLMN) that contains a subscriber type determining means (SSTDM) which determines on the basis of call set-up messages whether in particular the second subscriber station (WS) of an IP-network (INTRANET) is capable of performing an audio data encoding/decoding, in particular a GSM speech encoding/decoding. The subscriber station type determining means (SSTDM) switches off an audio data encoding/decoding means (CODEC) in a base station controller (BSC) if the second subscriber station (WS) is capable of performing the speech encoding/decoding. Thus, a deterioration of the speech quality due to performing unnecessary audio data encoding/decoding is avoided and the bandwidth in the PLMN/data network can be utilized more efficiently.

-8-

E.   The Hsu Reference

Hsu describes a digital wireless telephone that downloads software related to digital telephone services using a client browser. The digital telephone initiates a data call to an interworking unit via a digital wireless telephone network, using a prescribed wireless data protocol such as IS-95A. The interworking unit recovers the payload of the wireless data packets to establish a two-way data link with the digital telephone. The interworking unit sends data messages to a destination server across a second two-way data link in a packet switched network to establish a two way session between the digital telephone and the destination server. The user of the digital telephone can thus communicate with the server via a two-way application-layer session using hypertext-based messaging. The digital telephone can thus navigate between different servers on the packet switched network for activation of different digital telephone services, and for downloading new software or updating existing software related to the digital telephone services.

F.   The Applicants' Invention is Patentable Over the References

The Applicants' invention, as recited in the independent claims, is patentable over the references, because the claims contain limitations not taught by the references.

The Office Action restates the rejections from the previous Office Action. In addition, the Office asserts the following:

> Response to Arguments
> 5.   Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.
> Examiner believes that the Palermo reference still reads on the claim invention. Applicant argues (Remarks, page 10-11) that Palermo does not suggest loading one of a plurality of vocoders into a processor of a called party's handset based on a particular type of vocoder used with a calling party's handset. The Palermo reference clearly discloses a communication between a transmitter and a receiver that can be read as a called party and a calling party. All processing of the information between reception and reproduction of speech and reception and transmission of radio frequency signal respectively is preformed in software. Further, Palermo discloses that the operation of the system of Fig. 8 is the same whether operating as receiver, transmitter or transceiver. The user or the operator selects (for example at a receiver) the waveform or waveforms that are to be used. In addition the operator or the user may switch from one waveform mode to another to communicate over different radio networks (a particular type of network (see column 1, line 55-column 2, line 8)). The same vocoder that is used at the transmitter has to be used at the receiver or the network will not work.
> Further, the Applicant argues that Seippi does not teach transmitting a notification to a called party's network that a calling party's handset is calling from a

-9-

G&C 139.146-US-U1

particular type of network and switching of a plurality of vocoders in the handset or
any loading of a selected vocoder for execution in the handset. Examiner respectfully
disagrees. It is respectfully submitted that the rejection is based on the combined
teaching of the Seippi and Palermo references. Seippi teaches sending a call set-up
message to setup a call between the first and second subscriber station and
determining the type of network of the second station based on the call setup
message. Palermo teaches selection or switching of a plurality of vocoders in the
handset, as stated above, to match the vocoder used at the transmitter, so that the
same vocoder is used at both the transmitter (calling) and receiver (called).

Applicants' attorney disagrees.

Palermo merely states that a vocoder is loaded into the called party's handset based on the
type of network (i.e., waveform) being used by the called party's handset, not the calling party's
handset.

Palermo: Col. 1, lines 56-63 (actually, col. 1, line 56 – col. 2, line 8)

The invention is directed to a software radio in which operation is, for the
most part, effected by a software program that runs on a generic radio platform.
Interoperable waveform modes are added as software applications in a manner
similar to adding applications to a personal computer. In accordance with one aspect
of the invention, the radio user or operator selects stored waveforms on demand as
communications requirement dictate. As is described below, one embodiment of the
invention utilizes nonvolatile storage to implement a plurality of waveforms. The
operator may place one or more of the waveforms in cache random access memory
such that rapid switching between the selected waveforms can occur. **In addition,
the operator may switch from one waveform mode to another to communicate
over different radio networks, such as the Iridium satellite communication
network manufactured by Motorola, Inc., TDMA and/or CDMA cellular
networks, or other land mobile two-way radio systems such as the IDEN
system by Motorola, Inc., or can broadcast on all or a number of them
simultaneously.**

Palermo: Col. 5, lines 38-49 (actually, col. 5, lines 26 – col. 6, line 2)

FIG. 8 illustrates an arrangement for use with processors which permits the
rapid switching of waveform functionality. In accordance with an embodiment of the
invention, the functionality of a processor is obtained from a collection of waveform
software accessible to each processor. As shown in FIG. 8 three processors 807, 809,
811 each have associated therewith cache memory 813, 815, 817 respectively. A
memory 801 accessible to each of processors 807, 809, 811 contains waveform
software 803, 805, 806 for the various waveforms that may be processed. The
memory 801 is for example a disk drive. To permit the rapid switching between
waveforms, high-speed memory such as ram or random access memory is used for
the caches 813, 815, 817. In operation, if a user of the system utilizing the processors
selects a waveform to be utilized, the system processors 807, 809, 811 retrieve the
appropriate waveform software from hard disk memory 801 and causes the

-10-

appropriate software to be stored in the cache memories 813, 815, 817. Thus, for example, if waveform 1 is selected, waveform 1 vocoder software 819 is retrieved from memory 801 and stored in cache 813; waveform 1 encryption software 821 is retrieved from memory 801 and stored in cache 815; and waveform 1 modulator software 823 is retrieved from memory 801 and stored in cache 817. Similarly, software for other waveforms is retrieved from memory 801 and stored in caches 813, 815, 817 for other selected waveforms. Thus in accordance with one aspect of the invention, all of the constituent parts of a wave form application function are distributed to the processors that need to execute them. As shown in FIG. 8, no designation is made as to whether the system is operating as receiver or as transmitter. The operation of the system of FIG. 8 is the same whether operating as receiver, transmitter or transceiver. Operation of the system structure of FIG. 8 is shown in FIG. 9. In step 901, the user selects the waveform or waveforms that are to be used. In response to such selection, the system retrieves the waveform application routines from memory 801 as indicated at step 903. The waveform applications are stored in the cache memories 813, 815, 817 for the processors 807, 809, 811 as indicated at step 905. In step 905, the waveform application is disseminated to each processor cache as necessary to process the related waveform. At step 907, waveform programmable information such as bandwidth, sample rates and frequencies of operation are provided.

Palermo does not teach or suggest loading one of a plurality of vocoders into a processor of a called party's handset based on a particular type of network communicating with a calling party's handset.

Instead, the above portions of Palermo merely describe switching between vocoders in the called party's handset according to the type of network communicating with that called party's handset, not according to the type of network communicating with the calling party's handset.

Sieppi merely states that a decision whether to use a decoder at a switch is made based on the types of vocoders in the calling and called party's handsets.

Sieppi: Col. 5, line 65 – Col. 6, line 24
This object is solved by a method for performing data communications between a first subscriber station (MS) of a mobile radio communication network (PLMN) and a second subscriber station (WS) connectable to said mobile radio communication network (PLMN), wherein at least said first subscriber station (MS) comprises an audio data encoding/decoding means (CODEC), comprising the following steps: sending a call set-up message from said first or second subscriber station (MS) to a switching means (BSC, MSC/VLR) of said mobile radio communication network (PLMN) to set up a call between said first and second subscriber stations (WS, MS); determining on the basis of said call setup message whether said second subscriber station (WS) is of a type also comprising an audio data encoding/decoding means (CODEC); setting up a call between said first and second subscriber station (WS); switching off an audio data encoding/decoding means (DECOD) in said switching means (BSC, MSC/VLR), if said second

-11-

G&C 139.146-US-U1

subscriber station (WS) also comprises an audio data encoding/decoding means (CODEC); and encoding/decoding audio data at said first and second subscriber station (MS, WS) using said respective encoding/decoding means (CODEC) and communicating said coded audio data through said switching means (BSC, MSC/VLR) without applying an audio data coding/decoding thereto in said switching means (BSC, MSC/VLR).

Sieppi does not teach or suggest transmitting a notification to a called party's network that a calling party's handset is calling from a particular type of network, and then loading one of a plurality of software-defined vocoders into the called party's handset based on a transmitted notification.

Instead, Sieppi only describes switching off the encoder/decoder in the switch means, if the handset has the necessary encoder/decoder. No notification of network type is transmitted to the called party's handset in Sieppi, and there is no selection, or switching, or any control, of a plurality of vocoders in the called party's handset, or any loading of a selected vocoder for execution into the called party's handset.

Thus, even when combined, Palermo and Sieppi do not teach or suggest Applicants' claims. Instead, the combination of Palermo and Sieppi would only teach loading a vocoder into the called party's handset based on the type of network being used by the called party's handset, and switching off the encoder/decoder in a switch means in the network, if the calling and called handsets both had the same encoder/decoder.

Finally, Hsu fails to overcome the deficiencies of Palermo and/or Sieppi. Recall that Hsu was cited merely for describing obtaining up-to-date software for the vocoder from a web server. However, Hsu does not teach or suggest that the handset may have a plurality of vocoders, or that the loaded vocoder is selected based on a particular type of network communicating with the handset. Indeed, the teaching of Hsu is to have only one type of vocoder in the handset, although the version of the vocoder may be updated from a web site.

Thus, the references, taken individually or in combination, do not anticipate or render obvious Applicants' claimed invention. Moreover, the various elements of Applicants' claimed invention together provide operational advantages over the references. In addition, Applicants' invention solves problems not recognized by the references.

Thus, Applicants' attorney submits that independent claims 1, 5, 9, 13, 17, and 21 are allowable over Palermo, Sieppi and Hsu. Further, dependent claims 2-4, 6-8, 10-12, 14-16, 18-20, and 22-24 are submitted to be allowable over Palermo, Sieppi and Hsu in the same manner, because

-12-

they are dependent on independent claims 1, 5, 9, 13, 17, and 21, respectively, and because they contain all the limitations of the independent claims. In addition, dependent claims 2-4, 6-8, 10-12, 14-16, 18-20, and 22-24 recite additional novel elements not shown by Palermo, Sieppi and Hsu.
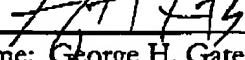
III. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

GATES & COOPER LLP
Attorneys for Applicants

Howard Hughes Center
6701 Center Drive West, Suite 1050
Los Angeles, California 90045
(310) 641-8797

Date: **August 19, 2005**

By:_____
Name: George H. Gates
Reg. No.: 33,500

GHG/mrj

-13-